

Mineral Industry Surveys

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SULFUR IN JULY 2003

During the month, production of recovered elemental sulfur was 749,000 metric tons, according to the U.S. Geological Survey (USGS). July production was 9% higher than June 2003, and 5% higher than that of July 2002. Shipments were 10% higher than those of June 2003. Producers' ending stocks for July 2003 were 198,000 tons.

Import and export data for July 2003 were not available at the time of publication and will be published in the Sulfur in August 2003 Mineral Industry Surveys along with apparent consumption. Imports of recovered sulfur for June 2003 were

estimated to be 241,000 tons; exports were 11,000 tons. Imports of sulfuric acid for June 2003 were 84,000 tons; exports were 21,000 tons.

Significant adjustments have been made to the sulfur import data. Reports from the U.S. Census Bureau appear to underreport sulfur imports, especially material from Canada. The revised figures are based on Census information, data from other published sources, and personal communications with industry experts. Better strategies for estimating import data from Canada are being explored.

TABLE 1
SALIENT SULFUR STATISTICS¹

(Thousand metric tons)

Period	Production			Shipments, all sources
	Petroleum ²	Natural gas	Total	
2002:				
January-December	6,750	1,760	8,500	8,490
January-July ^r	3,880	1,010	4,890	4,900
July	565	146	711	715
August	589	125	714	725
September	543	132	675	659
October	545	164	708	699
November	579	155	733	747
December	611	168	779	755
2003:				
January	603	169	772	768
February	526 ^r	148	674 ^r	658 ^r
March	597 ^r	160	758	739
April	625	166	791	807
May	626 ^r	141	766 ^r	762 ^r
June	561 ^r	124	685 ^r	676 ^r
July ^p	610	139	749	755
Total	4,150	1,050	5,200	5,160

^pPreliminary. ^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes a small quantity from coking operations.

TABLE 2
U.S. IMPORTS OF SULFUR¹

(Thousand metric tons and thousand dollars)

Period	Canada		Mexico		Total, all countries ²	
	Quantity ^e	Value ³	Quantity	Value ³	Quantity ^e	Value ³
2002:						
January-December	1,950	9,450	430	11,300	2,560	26,800
January-June	870 ^r	2,950	208	4,230	1,130 ^r	9,380
June	180	106	30	774	210	1,270
July	180	405	44	1,140	242	1,960
August	180	1,860	30	944	223	3,240
September	180	1,050	45	1,420	242	3,010
October	180	1,240	29	944	247	3,290
November	180	843	29	942	232	2,230
December	180	1,100	45	1,640	252	3,720
2003:						
January	180	1,280	44	2,460	224	3,740
February	170 ^r	2,330	45	1,850	215 ^r	4,250
March	200 ^r	2,870	45	2,130	245 ^r	5,660
April	190 ^r	2,950	44	2,380	234 ^r	5,230
May	200 ^r	4,160	45	2,530	266 ^r	7,760
June	180	2,940	44	2,410	241	6,270
Total	1,120	16,500	267	13,800	1,430	32,900

^eEstimated. ^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include other countries not listed.

³Declared customs valuation.

Sources: U.S. Census Bureau data as adjusted by U.S. Geological Survey and PentalSul North America Sulphur Service.

TABLE 3
U.S. IMPORTS OF SULFURIC ACID¹

(Thousand metric tons and thousand dollars)

Period	Canada			Europe			Total, all countries ²		
	Quantity	Sulfur content	Value ³	Quantity	Sulfur content	Value ³	Quantity	Sulfur content	Value ³
2002:									
January-December	615	201	17,900	217	71	3,750	1,060	344	36,400
January-June	389	127	10,800	88	29	857	606	195	18,600
June	70	23	1,770	12	4	254	83	27	2,460
July	37	12	1,300	21	7	541	61	20	2,520
August	22	7	878	22	7	224	51	17	5,430
September	37	12	1,130	19	6	319	59	19	2,120
October	33	11	1,170	9	3	255	47	15	2,110
November	51	17	1,390	28	9	1,010	93	31	3,080
December	45	15	1,310	30	10	548	142	47	2,590
2003:									
January	38	13	1,330	29	9	511	67	22	1,900
February	30	10	1,080	25	8	836	57	19	2,360
March	42	14	1,740	19	6	279	63	21	2,480
April	44	14	1,680	--	--	--	54	18	2,200
May	34	11	1,320	29	10	638	75	25	2,710
June	26	8	963	40	13	1,350	84	27	2,770
Total	214	70	8,100	142	46	3,620	400	132	14,400

--Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include other countries not listed.

³Declared customs valuation.

Source: U.S. Census Bureau.

TABLE 4
U.S. EXPORTS OF SULFUR AND SULFURIC ACID¹

(Thousand metric tons and thousand dollars)

Period	Sulfur		Sulfuric acid		
	Quantity	Value ²	Quantity	Sulfur content	Value ²
2002:					
January-December	555	40,000	148	49	12,800
January-June	284	20,400	71	23	5,740
June	127	6,650	13	4	1,100
July	2	189	12	4	887
August	49	1,340	15	5	1,230
September	70	6,920	16	5	1,840
October	76	3,450	11	4	1,040
November	60	2,400	9	3	839
December	14	5,300	14	5	1,190
2003:					
January	107	3,440	12	4	1,380
February	63	3,410	16	5	1,150
March	31	2,020	11	3	1,360
April	90	2,910	12	4	1,430
May	41	2,430	22	7	1,610
June	11	1,780	21	7	1,790
Total	343	16,000	94	30	8,710

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Declared f.a.s. (free alongside ship) valuation.

Source: U.S. Census Bureau.

TABLE 5
U.S. CONSUMPTION OF SULFUR¹

(Thousand metric tons)

Period	Domestic sources ²	Imports ^e	Consumption
2002:			
January-December	7,930	2,560	10,500
January-June ^f	7,290	1,130	8,410
June	553	210	763
July	713	242	955
August	676	223	899
September	589	242	831
October	623	247	870
November	687	232	919
December	741	252	993
2003:			
January	661	224	885
February ^f	595	215	810
March	708	245 ^r	953 ^r
April	717	234 ^r	951 ^r
May ^f	721	266	987
June	665	241	906
Total	4,070	1,430	5,490

^eEstimated. ^fRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Calculated as shipments minus exports.

TABLE 6
RECOVERED SULFUR PRODUCED AND SHIPPED IN THE UNITED STATES,
BY PAD (PETROLEUM ADMINISTRATION FOR DEFENSE) DISTRICT¹

(Thousand metric tons)

District and source	July 2003 ^p		June 2003		Total 2003 ²		Year to date 2002 ²	
	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1:								
Petroleum and coke	20	22	19	18	127	128	145 ^r	147 ^r
Natural gas	2	2	2	2	15	15	17 ^r	17 ^r
Total	22	24	21	20	142	143	161 ^r	164 ^r
PAD 2:								
Petroleum and coke	70	69	79 ^r	79 ^r	526	518	477 ^r	480 ^r
Natural gas	11	10	4	4	32	32	29 ^r	28
Total	80	80	83 ^r	82 ^r	558	550	506 ^r	508
PAD 3: ³								
Petroleum and coke	404	404	351	354	2,670	2,680	2,580 ^r	2,580 ^r
Natural gas	28	29	31	31	235	236	255 ^r	259 ^r
Total	433	433	382	384	2,900	2,910	2,840	2,840
PAD 4 and 5: ⁴								
Petroleum and coke	116	122	112	111	825	804	673 ^r	673 ^r
Natural gas	98	95	87	79	766	753	713 ^r	717 ^r
California	87	92	88	86	654	639	539 ^r	538 ^r
Total	214	217	200	190	1,590	1,560	1,390 ^r	1,390 ^r
Grand total	749	755	685 ^r	676 ^r	5,200	5,160	4,890 ^r	4,900 ^r

^pPreliminary. ^rRevised.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²May include revisions to prior months.

³Includes the U.S. Virgin Islands.

⁴Quantities produced and shipped in California included in petroleum and natural gas. California total shown for information purposes only.

TABLE 7
COMPARATIVE SULFUR AND SULFURIC ACID STATISTICS¹

(Million metric tons per year [annualized basis] and dollars per metric ton for period shown)

	2003			2002
	July	June	Year to date	total
Production	8.82 ^p	8.33 ^r	8.94	8.50
Shipments	8.89 ^p	8.22 ^r	8.89	8.49
Exports of sulfur	NA	0.13	0.69	0.56
Imports of sulfur:				
Canada	NA	2.19 ^e	2.26 ^e	1.95
Mexico	NA	0.54	0.54	0.43
Total ²	NA	2.93 ^e	2.87 ^e	2.56
Export of H ₂ SO ₄	NA	0.26	0.19	0.15
Import of H ₂ SO ₄ :				
Canada	NA	0.32	0.43	0.62
Europe	NA	0.49	0.27	0.22
Total ²	NA	1.02	0.81	1.06
Consumption: ³				
Domestic sources	NA	8.09	8.20	7.93
Imports	NA	2.93 ^e	2.87 ^e	2.56
Total	NA	11.00	11.10	10.50
Sulfur export values ⁴	NA	\$162	\$47	\$72
Sulfur import values: ⁴				
Canada	NA	\$16	\$15	\$5
Mexico	NA	\$55	\$52	\$26
Average	NA	\$26	\$23	\$10
H ₂ SO ₄ export values ⁴	NA	\$85	\$93	\$86
H ₂ SO ₄ import values: ⁴				
Canada	NA	\$37	\$38	\$29
Europe	NA	\$34	\$25	\$17
Average	NA	\$33	\$36	\$34

^eEstimated. ^pPreliminary. ^rRevised. NA Not available.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes other countries not listed.

³Because July trade data were not available, July consumption was not determined.

⁴Average value per ton for most recent data available.